



## INTERNATIONAL APPLICATION PUBLISHED UNDER THE PATENT COOPERATION TREATY (PCT)

<b>(51) International Patent Classification <sup>7</sup> :</b> <b>C11B 3/00, A23D 9/00, A23L 1/30, A23K 1/16, A61K 31/20, 31/23, A61P 1/00, 3/00, 9/00, 17/00, 25/00, 29/00, 37/00</b>	<b>A1</b>	<b>(11) International Publication Number:</b> <b>WO 00/44862</b>  <b>(43) International Publication Date:</b> 3 August 2000 (03.08.00)
<b>(21) International Application Number:</b> PCT/CA00/00078  <b>(22) International Filing Date:</b> 28 January 2000 (28.01.00)  <b>(30) Priority Data:</b> 2,260,397                      29 January 1999 (29.01.99)                      CA  <b>(71) Applicant (for all designated States except US):</b> ATLANTIS MARINE INC. [CA/CA]; Scotia Centre, Suite 503, 235 Water Street, St. John's, Newfoundland A1C 1B6 (CA).  <b>(72) Inventor; and</b> <b>(73) Inventor/Applicant (for US only):</b> MAG, Ted [CA/CA]; 35 Old Church Road, King City, Ontario L7B 1K4 (CA).  <b>(74) Agent:</b> DEETH WILLIAMS WALL; National Bank Building, Suite 400, 150 York Street, Toronto, Ontario M5H 3S5 (CA).		<b>(81) Designated States:</b> AE, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, CA, CH, CN, CR, CU, CZ, DE, DK, DM, EE, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, NO, NZ, PL, PT, RO, RU, SD, SE, SG, SI, SK, SL, TJ, TM, TR, TT, TZ, UA, UG, US, UZ, VN, YU, ZA, ZW, ARIPO patent (GH, GM, KE, LS, MW, SD, SL, SZ, TZ, UG, ZW), Eurasian patent (AM, AZ, BY, KG, KZ, MD, RU, TJ, TM), European patent (AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE), OAPI patent (BF, BJ, CF, CG, CI, CM, GA, GN, GW, ML, MR, NE, SN, TD, TG).  <b>Published</b> <i>With international search report.</i> <i>Before the expiration of the time limit for amending the claims and to be republished in the event of the receipt of amendments.</i>
<b>(54) Title:</b> PROCESS OF CONVERTING RENDERED TRIGLYCERIDE OIL FROM MARINE SOURCES INTO BLAND, STABLE OIL		
<b>(57) Abstract</b>  <p>Triglyceride oil derived from marine sources, mammalian and fish, is treated with a silica at relatively low temperature under vacuum and is then further treated with a bleaching clay under vacuum and at higher temperature. The silica and the bleaching clay are then separated from the oil. The oil treated by this method is essentially free of proteinaceous materials, phosphatides and mucilage, pro-oxidant metals and very low in colored compounds, and is suitable for deodorizing. The deodorized oil is completely bland, unchanged in the concentration of the long-chain highly unsaturated fatty acids (EPA, DPA and DHA), very low in color, peroxides and secondary oxidation products, free of pesticides and has very good flavor stability. The method avoids the use of any chemicals, such as in the acid and base treatments required in conventional degumming and alkali refining of oils of marine origin. This avoids the formation of artifacts in the oil and trace contamination with chemicals. It also reduces the number of process steps required to produce deodorized food oil from marine sources, which is advantageous in respect to oil quality, process losses and processing costs. The method is especially environmentally advantageous, since it avoids the need for soapstock and waste water processing entirely. Refined oil produced by the method is useful as a nutritional supplement and in methods of therapy or medical treatment.</p>		